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April 21, 2004 by Kay Bulen Kay Bulen  
Date Signature Printed Name

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Clinton et al.  
Serial No.: 09/506,079  
Filed: February 16, 2000  
For: HER-2 BINDING ANTAGONISTS  
Art Unit: 1642  
Examiner: Anne L. Holleran  
Docket No.: 49321-16  
Date: April 21, 2004

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### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the requirements in 37 C.F.R. § 1.56, and in conformance with 37 C.F.R. 1.97 and 1.98, Applicants hereby submit an Information Disclosure Statement. Applicants respectfully request that the Examiner: (1) consider the following documents during the course of her examination of the above-identified patent application, and (2) list the following documents in the References Cited section of any patent that may issue from the above-identified patent application.

As authorized by Examiner Holleran by voice mail on April 7, 2004, all cited references are provided, except U.S. patents and U.S. and WO patent applications, along with a completed Supplemental Information Disclosure Statement by Applicant listing form (formerly 1449).

One or more of these documents came to the attention of the Applicants when it was cited either in an International Search Report, a Supplemental European Search Report, or in the context of due diligence activities by potential investors evaluating the exclusive licensee of this application. (Copies of the corresponding Search Reports are enclosed.)

Applicants add the following comments relating to particular references:

WO91/02062 to Triton Biosciences Inc.

This PCT application claims priority to 04 August 1989, and claims DNA encoding, and polypeptides corresponding to gp75, which is the extracellular domain (ECD) of the c-erbB-2 (HER-2) receptor. Also claimed are anti-gp75 antibodies, methods of treatment and detection using anti-gp75 antibodies, and diagnostic assays based on detection of gp75. Use of gp75 polypeptides in vaccines is further claimed.

Significantly, WO91/02062 does not teach the novel ligands of this invention, and certainly does not describe or otherwise suggest the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants' inventive Herstatin (in fact, WO91/02062, at page 5, lines 4-7 states, as generally appreciated in the art at the time, that no ligand [agonist or antagonist] had been identified for the c-erb-2 receptor.).

WO01/89566 to Genentech, Inc.

This PCT application claims priority to 19 May 2000, and teaches and claims an assay to increase the likelihood of the effectiveness of an administered erbB antagonist cancer treatment (*i.e.*, anti-erbB antibodies; *e.g.*, Herceptin) to a subject having an amplified erbB gene in tumor cells from a tissue sample from that subject.

Significantly, with respect to c-erbB-2 (HER-2), WO01/89566, teaches only a method for increasing the likelihood of the effectiveness of an ErbB antagonist cancer treatment and specifically anti-HER-2 antibodies, and does not teach, describe or otherwise suggest the novel ligands of this invention, and certainly not the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants' inventive Herstatin (in fact,

WO01/89566, as revealed under the definition of ‘ErbB ligand’ at page 8, line 20 through page 9, and as generally appreciated in the art, teaches that no ligand [agonists or antagonists] had been identified for the c-erb-2 récepteur.).

WO 95/25166 to New York University Medical Center

This PCT application claims priority (through CIP) to 1994, and claims proteins or peptides having a BLM domain, drug screening methods to identify binding partners to a BLM domain, and methods of treating, comprising the step of disrupting the interaction between a “BLM domain (See pages 24 through 26) and its natural binding partner,” or between “domain 1 and/or domain 3 of an EGF receptor and an EGF ligand.”

Significantly, WO95/25166 is directed to proteins or compositions having a BLM domain, drug screening methods to identify binding partners to a BLM domain, and methods of treating, comprising the step of disrupting the interaction between a BLM domain and its natural binding partner. , WO95/25166 neither teaches nor describes the novel ligands of this invention, and certainly does not teach, describe or otherwise suggest the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants’ inventive Herstatin.

U.S. Patent 5,837,523 to Greene & Quain.

This patent claims priority (through CIP) to 1994, and claims a “nucleic acid molecule that encodes a protein that can form a dimer with epidermal growth factor receptor, and can form a dimer with p185 [HER-2], wherein said protein lacks tyrosine kinase activity....”

Significantly, U.S. 5,837,523 teaches the use of truncated or mutant p185 molecules that lack kinase activity and yet dimerize. U.S. 5,837,523 does not teach, describe or otherwise suggest the novel ligands of this invention, and does not teach, describe or suggest the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants’ inventive Herstatin.

U.S. Patent 6,045,797 to Margolis & Schlessinger

This patent claims priority (through continuations) to 1994, and claims isolated polypeptides consisting of a BLM domain consisting of an amino acid sequence having at least

20% or 30% sequence identity to a specific amino acid sequence from GRB-7 protein. This subject matter is one aspect of the subject matter described in WO 95/25166 to New York University Medical Center, and like WO/95/251666, does not teach, describe or otherwise suggest the novel ligands of this invention and does not teach, describe or suggest the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants' inventive Herstatin.

U.S. Patent 5,985,553 to King et al.

This patent claims priority through continuations to 1987, and through CIP to 1986, and claims a nucleic acid that specifically hybridizes to at least part of a MAC117 gene [SEQ ID NO:2 of this patent] or nucleic acid derivate thereof, and which does not hybridize to a nucleic acid encoding EGF receptor under stringent conditions.

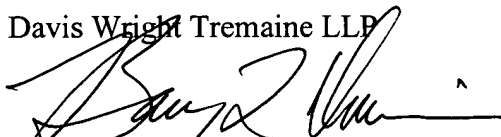
King et al., do not teach, describe or otherwise suggest the novel ligands of this invention and does not teach, describe or suggest the instant novel nucleic acids, proteins and polypeptides, compositions, methods and uses relating to applicants' inventive Herstatin.

The order of these references, or the inclusion of any comments thereon, should not be construed to suggest their relative pertinence. The filing of this Information Disclosure Statement should not be construed to suggest that a patentability search has been made or that the cited references are prior art or are considered to be material to patentability.

Applicants respectfully request consideration of the foregoing documents during examination of the above-identified patent application.

Respectfully submitted,

Davis Wright Tremaine LLP

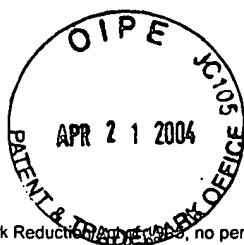


Barry L. Davison, Ph.D., J.D.

Attorney for Applicants

Registration No. 47,309

Davis Wright Tremaine LLP  
2600 Century Square  
1501 Fourth Avenue  
Seattle, WA 98101-1688  
Telephone: (206) 628-7621  
Facsimile: (206) 628-7699



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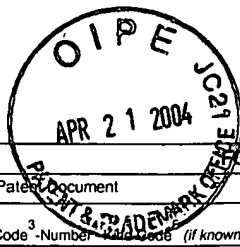
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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	09/506,079
		Filing Date	February 16, 2000
		First Named Inventor	Clinton
		Art Unit	1642
		Examiner Name	Anne L. Holleran
Sheet 1	of 6	Attorney Docket Number	49321-16

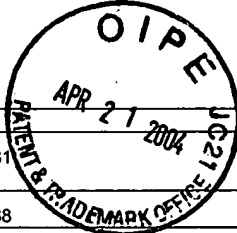
U.S. PATENT DOCUMENTS					
Examine r Initials*	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	B1	US-2001/0014326 A1	08-16-2001	Andya et al.	
	B2	US-2001/0021505 A1	09-13-2001	Morris et al.	
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	B18	US-5,756,456	05-26-1998	Ho et al.	
	B19	US-5,763,213	06-09-1998	Ho et al.	
	B20	US-5,837,523	11-17-1998	Greene et al.	
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	B22	US-5,874,528	02-23-1999	Lupu et al.	
	B23	US-5,910,583	06-08-1999	Marks et al.	
	B24	US-5,919,764	07-06-1999	Greene et al.	
	B25	US-5,985,553	11-16-1999	King et al.	
	B26	US-6,020,306	02-01-2000	Boyd et al.	
	B27	US-6,045,797	04-04-2000	Margolis et al.	
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>2</sup> - Date Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
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	B40	CA 2,042,064 (No PCT)	02-05-1991	Triton Biosciences, Inc.		
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	B52	EP 1 304 110 A2	04-23-2003	Glaxo Group Limited		
	B53	EP 1 308 455 A2	05-07-2003	Genentech, Inc.		
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	B71	WO 95/25166	09-21-1995	New York University		

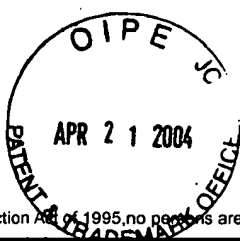




				Medical Center		
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	B73	WO 98/02438	01-22-1998	Glaxo Group Limited		
	B74	WO 98/23782	06-04-1996	Regents of the University of California		
	B75	WO 99/19732	04-22-1999	Abbott Laboratories		
	B76	WO 99/39729	08-12-1999	Genentech, Inc.		
Examiner Signature				Date Considered		

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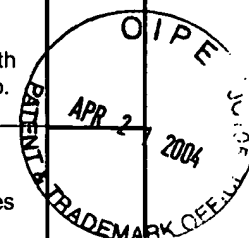
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		Filing Date	February 16, 2000		
		First Named Inventor	Clinton		
		Art Unit	1642		
		Examiner Name	Anne L. Holleran		
Sheet	5	of	6	Attorney Docket Number	49321-16

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	B77	VALERON et al., Quantitative analysis of p185 <sup>HER-2/neu</sup> protein in breast cancer and its association with other prognostic factors. Intl. J. Cancer (Pred. Oncol) 74:175-179, 1997	
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	B91	PREWETT et al., Anti-tumor and cell cycle responses in KB cells treated with a chimeric anti-EGFR monoclonal antibody in combination with cisplatin, International Journal of Oncology 9:217-224, 1996	
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Examiner Signature		Date Considered	
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